

said composition is dried, the resulting dried material has a detachment profile defined by at least one maximum detachment force F_{\max} of greater than 1 N., wherein F_{\max} , as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm^2 and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of $53/c \text{ } \mu\text{g}/\text{mm}^2$ with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C , under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine F_{\max} .

22. The composition according to claim 21, wherein said supports (A) and (B) comprise at least one material chosen from of polyethylene, polypropylene, metal alloy and glass.

23. The composition according to claim 21, wherein said maximum detachment force F_{\max} is greater than 2.5 N.

24. The composition according to claim 21, wherein said dried material has a glass transition temperature (T_g) of less than $+10^\circ\text{C}$, and has a detachment profile defined by at least:

- (a) a maximum detachment force $F_{\max} > 1 \text{ N}$, and

(b) when said temperature T_g is less than -15°C , a separation energy $E_{(M/V)}$ of the material placed in contact with a glass surface of less than $300 \mu\text{J}$.

25. The composition according to claim 24, wherein the separation energy $E_{(M/V)}$ is the energy supplied by the extensometer to separate the surfaces of two respective rigid, inert, nonabsorbent supports (C) and (D), each of said surfaces having a surface area of 38 mm^2 , wherein said supports are placed facing each other, and wherein one of said supports (C) and (D) comprises polished glass and the other of said supports (C) and (D) is coated at a rate of $53/c \mu\text{g}/\text{mm}^2$ with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition, and wherein said coated surface is dried for 24 hours at 22°C , under a relative humidity of 50%, and wherein the surfaces of both (C) and (D) are then subjected for 20 seconds to a compression of 3 N, and then subjected to a tensile force of detachment at a speed of 20 mm/minute for 30 seconds.

26. The composition according to claim 25, wherein the energy supplied by the extensometer is the work calculated by means of the following formula:

$$\int_{X_{s1}}^{X_{s2}} F(x) dx$$

$X_{s1} = 0.05$

in which

$F(x)$ is the force required to produce a displacement (x) ;

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X_{s1} is the displacement (expressed in millimeters) produced by the maximum tensile force;

X_{s2} is the displacement (expressed in millimeters) produced by the tensile force that allows the total separation of the two surfaces of the supports (C) and (D).

27. The composition according to claim 21, wherein said solid particles are chosen from flakes, platelets, leaflets, fibrils and powders.

28. The composition according to claim 21, wherein said solid particles have a size of less than 1 mm.

 29. The composition according to claim 28, wherein said solid particles have a size of less than 100 μm .

30. The composition according to claim 29, wherein said solid particles have a size of less than 30 μm .

31. The composition according to claim 21, wherein the concentration of said at least one adhesive polymer ranges from 0.05% to 30% by weight relative to the weight of the composition as a whole.

32. The composition according to claim 31, wherein the concentration of said at least one adhesive polymer ranges from 0.1% to 20% by weight, relative to the weight of the composition as a whole.

33. The composition according to claim 32, wherein the concentration of said at least one adhesive polymer ranges from 0.2% to 10% by weight, relative to the weight of the composition as a whole.

34. The composition according to claim 21, wherein the concentration of said solid particles ranges from 0.1% to 50% by weight, relative to the weight of the composition as a whole.

35. The composition according to claim 34, wherein the concentration of said solid particles ranges from 0.5% to 40% by weight, relative to the weight of the composition as a whole.

36. The composition according to claim 35, wherein the concentration of said solid particles ranges from 1% to 25% by weight, relative to the weight of the composition as a whole.

37. The composition according to claim 21, further comprising an organic solvent chosen from C₁ to C₄ alcohols, C₅ to C₁₀ alkanes, ketones, alkyl acetates, and di-alkoxy substituted alkanes.

38. The composition according to claim 37, wherein said C₁ to C₄ alcohols are chosen from ethanol and isopropanol.


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39. The composition according to claim 37, wherein said ketones are chosen from acetone and methyl ethyl ketone.

40. The composition according to claim 37, wherein said alkyl acetates are chosen from methyl acetate, ethyl acetate, and butyl acetate.

41. The composition according to claim 37, wherein said di-alkoxy substituted alkanes are chosen from dimethoxyethane and diethoxyethane.

 42. The composition according to claim 21, further comprising cosmetic additives chosen from reducing agents, silanes, fatty substances, thickeners, softeners, antifoams, moisturizers, antiperspirants, basifying agents, colorants, fragrances, preserving agents, surfactants, fixing polymers, nonfixing polymers, silicones chosen from volatile and nonvolatile silicones, polyols, proteins and vitamins.

43. The composition according to claim 42, wherein said reducing agents are chosen from thiols.

44. The composition according to claim 42, wherein said silanes are chosen from aminopropyltriethoxysilane.

45. The composition according to claim 42, wherein said silicones are chosen from anionic silicones.

46. The composition according to claim 21, wherein said composition is packaged in an aerosol device.

47. A method of making a styling, coloring, sheen-enhancing or conditioning product for the hair comprising including in said product a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one adhesive polymer, wherein when said composition is dried, the resulting dried material has a detachment profile defined by at least one maximum detachment force F_{\max} of greater than 1 N, wherein F_{\max} , as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm² and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of $53/c \mu\text{g}/\text{mm}^2$ with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine F_{\max} .

48. A method for holding and/or fixing the shape of a hairstyle comprising applying to the hair a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one adhesive polymer,

wherein when said composition is dried, the resulting dried material has a detachment profile defined by at least one maximum detachment force F_{\max} of greater than 1 N, wherein F_{\max} , as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm^2 and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of $53/c \text{ } \mu\text{g/mm}^2$ with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C , under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine F_{\max} .

49. A method for giving hair coloring effects comprising applying to the hair a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one adhesive polymer, wherein when said composition is dried, the resulting dried material has a detachment profile defined by at least one maximum detachment force F_{\max} of greater than 1 N, wherein F_{\max} , as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm^2 and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of $53/c \mu\text{g}/\text{mm}^2$ with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C , under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine F_{max} .

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50. A method for enhancing the sheen of hair comprising applying to the hair a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one adhesive polymer, wherein when said composition is dried, the resulting dried material has a detachment profile defined by at least one maximum detachment force F_{max} of greater than 1 N, wherein F_{max} , as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm^2 and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of $53/c \mu\text{g}/\text{mm}^2$ with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

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said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine F_{\max} .

51. A method for conditioning hair comprising applying to the hair a cosmetic hair composition comprising, in a cosmetically acceptable medium, solid particles and at least one adhesive polymer, wherein when said composition is dried, the resulting dried material has a detachment profile defined by at least one maximum detachment force F_{\max} of greater than 1 N, wherein F_{\max} , as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm² and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of 53/c $\mu\text{g}/\text{mm}^2$ with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

said precoated surfaces are dried for 24 hours at 22°C, under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine F_{\max} .

52. A product for styling, giving coloring effects to, enhancing the sheen of, or conditioning hair, said product comprising a cosmetic hair composition comprising,

in a cosmetically acceptable medium, solid particles and at least one adhesive polymer, wherein when said composition is dried, the resulting dried material has a detachment profile defined by at least one maximum detachment force F_{\max} of greater than 1 N, wherein F_{\max} , as measured by an extensometer, is the maximum tensile force needed to detach the surfaces of two respective rigid, inert, nonabsorbent supports (A) and (B), wherein said surfaces each have a surface area of 38 mm^2 and wherein said supports are placed facing each other; and further wherein:

said surfaces are precoated at a concentration of $53/c \text{ } \mu\text{g/mm}^2$ with a formulation comprising said at least one adhesive polymer in the cosmetically acceptable medium, wherein c is the concentration of solids in the formulation, expressed in grams per gram of composition; and

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said precoated surfaces are dried for 24 hours at 22°C , under a relative humidity of 50%, then subjected for 20 seconds to a compression of 3 N, and then subjected to detachment at a speed of 20 mm/minute for 30 seconds to determine F_{\max} .

REMARKS

Claims 1-20 have been replaced by new claims 21-52. Support for the new claims can be found in the original specification and claims. Applicants note the following two changes in language from the originally filed application.

First, in Claim 21, at page 2, line 7, above, the surfaces are precoated at a "concentration" of $53/c \text{ } \mu\text{g/mm}^2$. The original application text, at page 4, lines 21-22, uses the word "rate" instead of "concentration." The word "rate" was an inaccurate translation; clearly a concentration, measured in $\mu\text{g/mm}^2$ was intended.